

### **REMARKS**

The Examiner is thanked for the due consideration given the application. The specification has been amended to correct minor errors. No new matter is believed to be added to the application by this Amendment.

### **Status Of The Claims**

Claims 1-9 are pending in the application. Independent claims 1 and 5 have been amended to better set forth the invention being claimed, and the amendments to claims 1 and 5 are implicit in the originally filed application. Further, it is respectfully noted that the specification need not describe the claimed invention in *ipsis verbis* to comply with the written description requirement. *In re Edwards*, 568 F.2d 1349, 196 USPQ 465 (CCPA 1978). The test is whether the originally filed specification disclosure reasonably conveys to a person having ordinary skill that the applicants had possession of the subject matter later claimed. *In re Kaslow*, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983).

Claims 8 and 9 find support in the Examples in the specification.

### **Claim Objections**

The Examiner objects to the claims as containing informalities. The claims have been amended to be free from informalities.

### **Issues under 35 U.S.C. §103(a)**

The Examiner has rejected claims 1-7 under 35 U.S.C. §103(a) as being unpatentable over Krabetz et al., U.S. Patent No. 4,259,211 (hereinafter referred to as Krabetz '211) in view of

JTE/CAM/kj

Khoobiar, U.S. Patent No. 4,271,040 (hereinafter referred to as Khoobiar '040). Applicants respectfully traverse this rejection.

Independent claim 1 relates to a method for preparing a catalyst for partial oxidation of acrolein represented by Chemical Formula 1 ( $\text{Mo}_a\text{W}_b\text{V}_c\text{A}_d\text{B}_e\text{O}_x$ ) where Mo is molybdenum, W is tungsten, V is vanadium, A is iron, copper, bismuth, chromium, tin, antimony, or potassium, and B is an alkaline earth metal. As is set forth in claim 1 (and also in independent claim 5, which is drawn to a catalyst of Chemical Formula 1), B is present in Chemical Formula 1 such that  $0 < e \leq 3$ .

In the invention, the catalyst has a BET surface area of 4 to 15  $\text{m}^2/\text{g}$ . The method includes a step of dissolving the following metal salts: i) a molybdenum salt, ii) a tungsten salt, iii) a vanadium salt, iv) a salt of a metal selected from the group consisting of iron, copper, bismuth, chromium, tin, antimony, and potassium, and v) a salt of an alkaline earth metal in water to prepare a catalyst suspension. Then, a base solution and an acid solution are introduced into the catalyst suspension to control acidity of the catalyst suspension to a pH of 3.5 to 6.5. The acid solution is an organic acid solution having 1 to 10 carbon atoms. Then, the catalyst suspension of which acidity is controlled is contacted with an inert support to support the catalyst thereon and the supported catalyst is dried and fired.

As will be discussed below, various limitations according to the present claims are completely absent from the prior art. Moreover, these particular limitations result in superior properties according to the present invention.

Distinctions of the invention over the cited art references were placed before the Examiner in the Amendment filed April 24, 2006. For brevity, this discussion is not repeated in

full here but is incorporated by reference.

However, one of the failings of the cited art references includes the failure to teach or suggest that the pH of the catalyst suspension obtained by step a) is controlled by introducing a base solution and an organic acid solution having 1-10 carbon atoms. In contrast, independent claims 1 and 5 of the present invention recite, "organic acid solution having 1 to 10 carbon atoms."

An additional failure of the cited art references includes the failure to disclose component B (an alkaline earth metal) in Chemical Formula 1 ( $\text{Mo}_a\text{W}_b\text{V}_c\text{A}_d\text{B}_e\text{O}_x$ ). In order to highlight this failure of the applied art references, claims 1 and 5 have been instantly amended to recite that  $0 < e \leq 3$ .

As a result, a review of Krabetz '211 and Khoobiar '040 reveals that even when taken in combination, the references fail to suggest or disclose the presently claimed invention.

Therefore, one having ordinary skill in the art would not be motivated by Krabetz '211 and Khoobiar '040 to produce claims 1 or 5 of the present invention. A *prima facie* case of unpatentability has not been made. Claims depending upon claims 1 or 5 are patentable for at least the above reasons. Further, even if obviousness could be alleged, this obviousness would be fully rebutted by the unexpected results of the invention set forth in the Examples and Table 1 of the specification.

This rejection is overcome and withdrawal thereof is respectfully requested.

### **Information Disclosure Statement**

The Examiner is thanked for considering the Information Disclosure Statement filed June 22, 2004 and for making the initialed PTO-1449 form of record in the application in the Office Action mailed August 5, 2005.

### **Prior Art**

The prior art cited but not utilized by the Examiner represents the status of the related art that the invention supersedes. Additional remarks are accordingly not necessary.

### **Foreign Priority**

The Examiner has acknowledged foreign priority most recently in the Office Action mailed July 13, 2006.

### **Conclusion**

In view of the above, Applicants respectfully submit that the present claims define allowable subject matter. It is believed that a full and complete response has been made to the Office Action. Accordingly, the Examiner is respectfully requested to withdraw all rejections and allow the currently pending claims.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

JTE/CAM/kj


Application No. 10/691,665  
Amendment dated March 8, 2007  
Reply to Office Communication dated February 27, 2007

Docket No.: 0808-0345P  
Page 11 of 11

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Craig McRobbie, Reg. No. 42,874 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Dated: March 8, 2007

Respectfully submitted,

By  #42,874

James T. Eller, Jr.  
Registration No.: 39,538  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant

JTE/CAM/kj